

to measure the disruptive effects of influenza on daily activities.

**METHODS:** People with a previous influenza episode were recruited by newspaper advertisement to discuss the effects of influenza on their daily activities using a semi-structured interview technique. Each interview was transcribed, and a list of statements was generated via content analysis. A draft instrument was then developed for pilot testing. A cognitive debrief was included as part of the pilot test to gain a better understanding of patient's evaluation of the adequacy and relevance of the questionnaire. The final IDDQ was then produced. The IDDQ was administered in a clinical trial of influenza treatment. The psychometric properties of the instrument will be reported.

**RESULTS:** Twelve respondents were interviewed for the drafting of the IDDQ, while another ten were used in the pilot testing of the draft eight-item instrument. On the basis of the pilot testing, one item was re-ordered, five items were slightly re-worded, and two items were left unchanged. The final version of the IDDQ has eight items, each relating to the effects of influenza on disruption of specific daily activities: self-care; shopping; housework; care for others; exercise; social life; hobbies, and work/school/college. Each item is scored on a five-point, Likert-type response scale, rated attitudinally from completely agree to completely disagree.

**CONCLUSION:** This paper describes the successful development of a multi-item questionnaire to measure the effects of influenza on disruption of daily activities. Psychometric properties of the IDDQ will be presented.

## KIDNEY & URINARY DISEASE

### PKU I

#### COST-EFFECTIVENESS ANALYSIS OF THREE SURGICAL TREATMENTS FOR FEMALE STRESS URINARY INCONTINENCE

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**OBJECTIVE:** To compare the cost-effectiveness (CE) of three competitive surgical procedures for female stress urinary incontinence (SUI). The three procedures are retropubic urethral suspension (Burch), urethral sling, and a new procedure using SURx technology. The study population consists of women aged 18 to 85 years who have a confirmed diagnosis of type I or type II genuine SUI and a planned surgical treatment procedure. The perspective of commercial third-party payers is taken for this study.

**METHODS:** A decision model was developed to compare the costs and effectiveness of the three treatment strategies for SUI. A hypothetical woman in the study population is treated with one of the three treatment alternatives and tracked over a period of 12 months. The CE ratio was defined as cost per cure. Only direct medical costs were included and estimated by charge data (in year 2000 dollars). The costs, effectiveness, and outcome

probabilities were collected from InPatientView, the HCUP Nationwide Inpatient Sample, HCCA Physician Fee & Coding Guide, the literature, SURx clinical trials, and expert's suggestions.

**RESULTS:** The SURx procedure has the lowest costs (\$11,757.22) and the highest effectiveness (0.94). The CE of the SURx, Burch, and Sling procedures was \$12,539.70, \$13,167.85, and \$13,736.07 per cure, respectively. Burch and Sling procedures were dominated by SURx treatment. The incremental CE of Sling was \$52,310.61 per additional cure relative to Burch. The CE ratio was sensitive to the hospital and physician costs of each procedure and the SURx cure rate. The threshold value of the SURx cure rate was 62%.

**CONCLUSIONS:** SURx technology for treatment of women with type I or II genuine SUI is the most cost-effective treatment option as compared to the Burch and Sling procedures. Therefore, SURx may be an appropriate first-line therapy for SUI.

### PKU 2

#### AN ECONOMIC MODEL OF UNSTABLE BLADDER IN ITALY

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**OBJECTIVE:** An economic model was developed to estimate the comparative cost-effectiveness of treating unstable bladder (UB) with tolterodine immediate-release (2mg bid), oxybutynin (5mg bid) and "no treatment" in Italy. The model uses a one-year timeframe and the payer perspective.

**METHODS:** The treatment population was based on the percentage of patients seeking treatment in Italy. The treatment population was divided into successfully treated patients (STP) and patients failing treatment (PFT). The percentage of STP was calculated from clinical efficacy adjusted by annual persistency. For each group of patients, five categories of costs were identified: drug costs; incontinence pads; physician visits; lab tests/diagnostics, and associated comorbidities. Resource utilization and costs were obtained from the National Health Service, diagnostic and hospital codes (diagnostic related groups) and expert medical panels.

**RESULTS:** The prevalence of UB sufferers in Italy is estimated to be 12% in 2001 (approximately 7 million people), with only 23% of those patients seeking treatment. STP use fewer pads per day, visit physicians more frequently, have fewer lab tests/diagnostics, and experience fewer comorbidities than PFT. Efficacy is similar between tolterodine and oxybutynin. Persistence on therapy is higher for tolterodine compared to oxybutynin (70% for tolterodine, 19% for oxybutynin). As a result, effectiveness is higher for tolterodine than for oxybutynin (42% for tolterodine, 9.5% for oxybutynin, and 0% for "no

treatment"). Cost per STP in 2001 is lower for tolterodine (5523L. (€2.85)) than oxybutynin (17265L. (€8.92)). The "no treatment" group demonstrated the highest non-drug costs while providing no efficacy.

**CONCLUSION:** This economic model demonstrates that tolterodine is more cost-effective than oxybutynin in treating unstable bladder as measured by cost per successfully treated patient in Italy.

### PKU3

#### CUMULATIVE INCIDENCE AND TOTAL COSTS ASSOCIATED WITH URINARY AND OVERACTIVE BLADDER DISORDERS IN EMPLOYED POPULATIONS

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**OBJECTIVES:** Urinary incontinence and overactive bladder disorders are not recognized as significant issues for employed populations. Perceived as a problem for women over 50, and frequently undiagnosed, these conditions may have undetected effects on employee health costs and productivity. Using a large, longitudinal, multi-employer health-care database this investigation examined incidence and benefit use by employees who had a diagnosis of urinary incontinence or overactive bladder disorder (OAB).

**METHODS:** OAB was defined by ICD9 codes 595, 596 and 788. Incidence was estimated from a medical claims database of 230,000 employees. Excess benefit costs were derived from a subset (n = 36,777) with four-years of medical, absence, disability, and workers-compensation (WC) data. Using a censored regression model to control for differences in demographics, job and health characteristics expected incremental-benefit costs for OAB were calculated.

**RESULTS:** 2.58% of employees had OAB. Employees with OAB were significantly (p < .01) older and more likely to be female. Employees with OAB had significantly (p < .001) higher costs for all benefits except WC (\*p = .19) and had a greater likelihood of filing disability claims. Controlling other factors, OAB employees had higher costs for medical (diff = \$995), sick leave (diff = \$151), STD (diff = \$148), LTD (diff = \$76), and \*WC (diff = \$178). Total difference was \$1,548 per OAB employee. Where individual productivity data were available, employees with OAB produced 5% fewer units annually, although this is not statistically significant (p = .34).

**CONCLUSIONS:** OAB was detected in one in every 40 employees. Employees with OAB were higher users of health-related benefits, more costly overall, and absent more frequently. As such, OAB may be a hidden source of health costs for employers. More research needs to be done to determine what portion of OAB-associated costs can be avoided through appropriate treatment.

### PKU4

#### COST-MINIMISATION STUDY COMPARING SIMULECT VERSUS THYMOGLOBULINE IN RENAL TRANSPLANT INDUCTION

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**OBJECTIVE:** The aim of this study was to compare the costs, efficacy and safety of basiliximab (Simulect) versus Thymoglobuline in the treatment of renal transplant induction.

**METHODS:** We carried out an economic evaluation based on the data from clinical trial CHI-F-02. A total of 100 patients, fifty in each group, were recruited from nine sites across France. We estimated the direct medical costs of two strategies of renal transplant induction therapy incurred over six months in a piggy-back approach. Direct medical costs covered medications, hospital stays, dialysis, consultations and examinations not scheduled by the protocol. As both treatments offer the same efficacy, we ran a cost-minimisation study. The cost of care was analysed from a hospital perspective. Wilcoxon rank sum tests were performed to analyse the cost differences between the two strategies.

**RESULTS:** The study showed a significant reduction in the duration of initial hospital stay in the Simulect arm, as well as a significant reduction in the number of infectious episodes. Therefore, although the average cost of treatment with Simulect appears slightly higher than the cost with Thymoglobuline (2964 versus 2298 Euros), the cost of initial hospitalization is significantly lower in the Simulect arm (10 900 versus 11 967 Euros, p = 0.02). Furthermore the mean cost of infectious episodes is significantly lower in the Simulect arm (1056 versus 1790 Euros, p = .03). CMV infection accounts for 30% of this cost in the Simulect arm and 53% in the Thymoglobuline arm with a significantly different cost (p = 0.01).

**CONCLUSION:** In terms of direct medical costs, this study shows a saving of 1067 Euros per patient in the Simulect arm, which compensates for the initial higher price of this immunosuppressive drug.

### PKU5

#### HEALTH-RELATED CONSEQUENCES AND COSTS OF OVERACTIVE BLADDER

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